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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/792,288

03/03/2004

Thomas W. Wideman

FPY-089.01

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12/05/2006

GOODWIN PROCTER LLP  
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EXAMINER

NAKARANI, DHIRAJLAL S

ART UNIT

PAPER NUMBER

1773

DATE MAILED: 12/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/792,288

Applicant(s)

WIDEMAN ET AL.

Examiner

D. S. Nakarani

Art Unit

1773

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2-13 and 15-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-13 and 15-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)            | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. The disclosure is objected to because of the following informalities: the specification as filed has numerous errors or inconsistencies. As for example the structure of silicon modified polyolefin given in paragraph 0059 appears to require  $R_1$  either chemical bond or bivalent organic or inorganic moiety. The  $R_1$  specified in paragraph 0062 includes monovalent radical or element such as alkyl, alkenyl, alkynyl, alkoxy, hydroxyl, hydrogen etc. In paragraph 0033, the "term silyl means  $-\text{SiR}_3$  where R here can be H, C, O, Si, halogen or heteroatom" cannot be understood since as per chemical dictionary the term "silyl" means silicyl. The radical  $-\text{SiH}_3$ , analogous to the methyl group  $-\text{CH}_3$  (See page 533 of Grant & Hackh's Chemical Dictionary (Copy enclosed)). Therefore when R is other than H, the term silyl cannot be understood. Applicants are strongly urged to review entire specification for additional inconsistencies and correct as necessary **without** introducing new matter.

Appropriate correction is required.

4. Claims 2-13 and 15-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 2 and 3, the phrase "organic moiety" renders claims indefinite. It is not clear what is meant by claimed moiety? The claimed moiety is bivalent or monovalent? Clarification and/or correction requested. As per structural formula in claims 2 and 3,  $R_1$  and  $R_2$  appear to be either chemical bond or bivalent organic moiety. However in claims 7, 8, 10, 18 and 21, disclosed species includes monovalent radicals such as alkyl, alkenyl, alkynyl etc. Therefore cannot be understood. Furthermore, the  $X_1$  in the structural formulae specified as being "moiety that is capable of bonding to said non-polyolefin" renders claims confusing. It is not clear whether claimed moiety is capable of bonding to non-polyolefin by chemical reaction or something else. Clarification and/or correction requested.

5. Claim 25 is rejected under 35 U.S.C. 102(b) as being anticipated by Ejiri et al (U. S. Patent 5,629,062).

Ejiri et al disclose a fiber reinforced plastic pipe comprising an inner layer formed of fiber reinforced thermosetting resin and an outer formed of thermoplastic resin. Ejiri et al disclose that for improving the bond strength between the inner layer and the outer thermoplastic layer, the thermoplastic resin sheet is subjected to surface treatment

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using silane (Col. 8, lines 47-51). Ejiri et al disclose thermoplastic such as polyethylene, polypropylene etc. (col. 8, lines 52-53). The thermosetting resin such as epoxy resins, phenolic resins etc are disclosed (Col. 4, lines 52-63).

6. Applicant's arguments filed September 15, 2006 have been fully considered but they are not persuasive. In reference to objection of disclosure and rejection of claims under 35 USC § 112, second paragraph, applicants mainly argue that based on the structural formulae, one of skilled in the art would recognize that  $R_1$  moieties recited in paragraph 0062 should be selected from those moieties that can be bivalent, such as alkyl, alkenyl, alkynyl and the like. In reference to silyl group, applicants state that one of skill in the art commonly use the term "silyl" to mean  $-\text{SiR}_3$  and submitted an Appendix A from the IUPAC Compendium indicating that silyl commonly refers to  $-\text{SiR}_3$ .

These arguments are unpersuasive because alkyl, alkenyl and alkynyl are monovalent not bivalent. Regarding silyl group, the examiner agrees with IUPAC definition for  $-\text{SiR}_3$  wherein R is hydrocarbyl. However definition of R in the present disclosure includes O, Si, heteroatom that are not hydrocarbyl.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to D. S. Nakarani whose telephone number is (571) 272-1512. The examiner can normally be reached on Tuesday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



**D. S. Nakarani**  
**Primary Examiner**  
**Art Unit 1773**

DSN  
November 27, 2006.